

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the installation of a new traffic control signal and 12-pair of interconnect cable at the intersection of MD 214 and Hampton Mall Entrance in Prince George's County, Maryland. MD 214 is considered to run in an east-west direction.

II. INTERSECTION OPERATION

The intersection is to operate in NEMA two (2) phase, semi-traffic-actuated mode. There will be an exclusive left turn phase for the westbound movement of MD 214 to operate currently with the Hampton Mall northbound to eastbound right turn movement. The MD 214 westbound through movement does not stop at any time. The left turn phase will change to a flashing mode during the MD 214 through movement phase.

An eight phase, full-traffic-actuated, solid state digital controller with special interconnect relay package necessary interconnect system hardware and software, and one 4-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. Equipment to be furnished by MD-SHA and installed by the Contractor.

Category Code No.	Quantity	Units	Specification Section	Description
971017	1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, special interconnect relay package and one 4-channel rack mounted loop detector amplifiers [Note: Controller and cabinet shall be supplied by Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
960022	6	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with mast arm mounting hardware and tunnel visors.
960070	1	EA	814	12 in., one-way, three section (R,Y,G,A) adjustable traffic signal head with pole mounting hardware and tunnel visors.
973023	15	SF	813	30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.
973023	22.25	SF	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.
973023	15	SF	813	36 in. x 60 in. R 10-6(1) sign with pole mounting hardware.
973023	15	SF	813	36 in. x 60 in. R 10-6(1) sign with mast arm mounting hardware.

B. Equipment to be furnished and installed by the Contractor.

All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Category Code No.	Quantity	Units	Specification Section	Description
203030	3	CY	205	Test pit excavation.
585445	120	LF	556	24 in. wide HAPPTM - white for stop line.
837001	3	EA	804	Ground rod - 3/4 in. diameter x 10 ft. length.
800000	1	EA	818	27 ft. steel mast arm pole with 70 ft. mast arm [Note: four 2 in. x 90 in. anchor bolts].
800000	1	EA	818	23.5 ft. steel signing mast arm pole with 22 ft. mast arm [Note: four 2 in. x 72 in. anchor bolts. See SN-9C on sheet 35 for details].
871202	1	EA	816	Install controller/cabinet base mounted.
860220	6	EA	814	Install vehicle signal head - mast arm mounted.
860260	1	EA	814	Install vehicle signal head - pole mounted.
800000	30	SF	813	Install sign - mast arm mounted.
800000	15	SF	813	Install sign - pole mounted.
813014	22.5	SF	813	Install sign - ground mounted
811001	6	EA	811	Handhole.
862102	375	LF	815	Sawcut for signal loop detector.
862101	1375	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
861104	110	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
800000	45	LF	810	2-conductor tray cable (No. 12 A.W.G.).
861107	90	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
861108	510	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
861117	40	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
861102	40	LF	810	3-wire (No. 8 A.W.G.) electrical cable.
802501	150	LF	810	Bare copper stranded ground wire (No. 6 A.W.G.).
805160	25	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
800000	500	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trench.
800000	20	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trench.
800000	50	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trench.
800000	30	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trench.
801004	10.55	CY	801	Concrete foundation for traffic signal equipment.
838003	1	EA	807	Controller and distribution equipment (120/240 v, one phase, three wire system for type B-14 overhead electrical service.
801106	41	LF	812	4 in. x 6 in. wood sign support.
822002	590	LF	---	12-pair voice grade jelly filled telemetry cable (No. 19 A.W.G.).
800000	1	EA	---	Clean, cut, and cap mast arm.
866103	1	EA	818	15 ft. luminaire arm.
831010	1	EA	806	250 watt HPS lamp and luminaire.
805150	60	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - dotted in roadway.

CONTACT LIST

The contact persons for District #3 are as follows:

Mr. Charlie Watkins
District Engineer
301-513-7300

Mr. Majid Shakib
Assistant District Engineer - Traffic
301-513-7300

Mr. Joe Geckle
Assistant District Engineer - Utility
301-513-7300

Mr. Randy Brown
Assistant District Engineer - Maintenance
301-513-7300

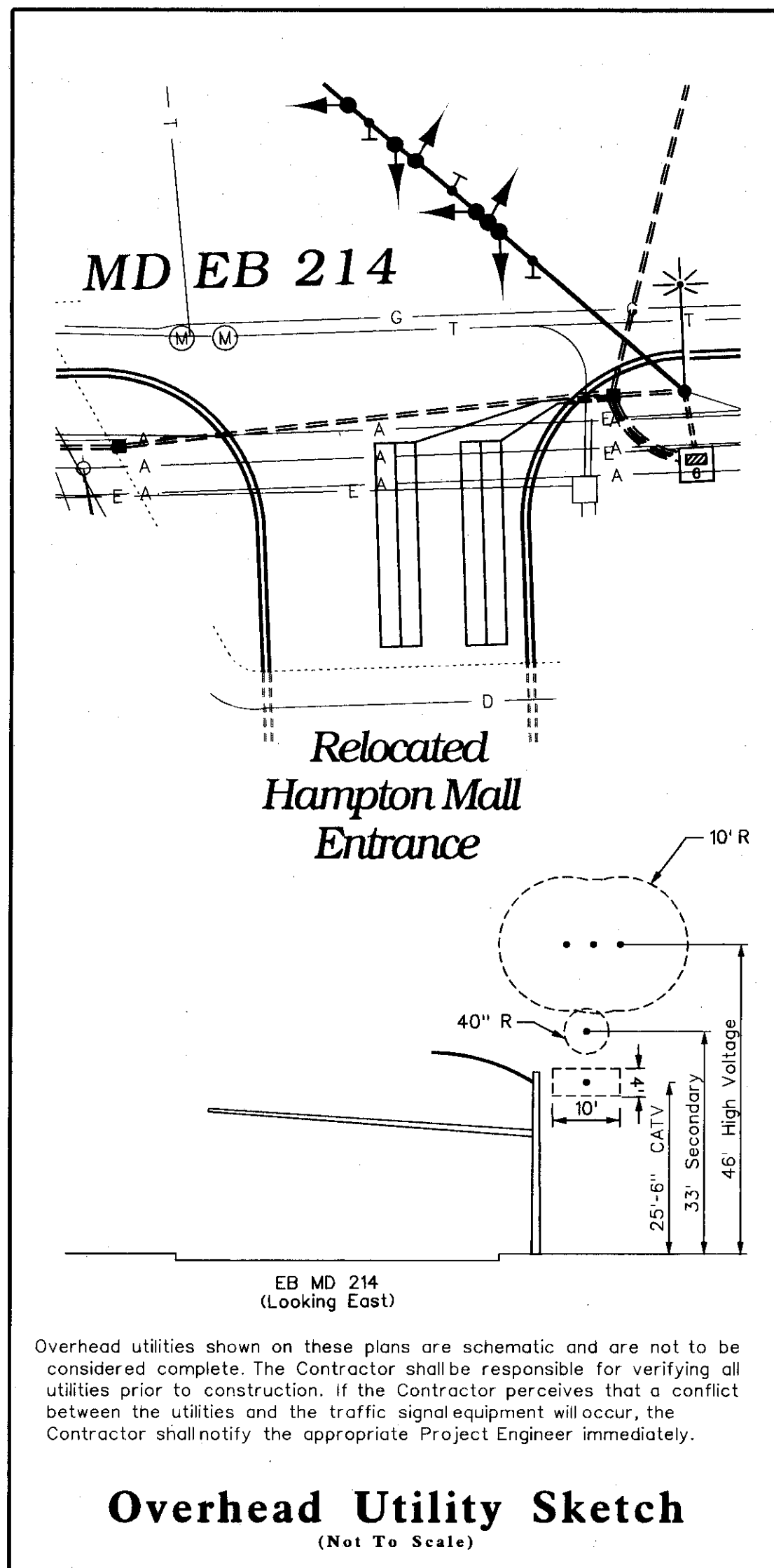
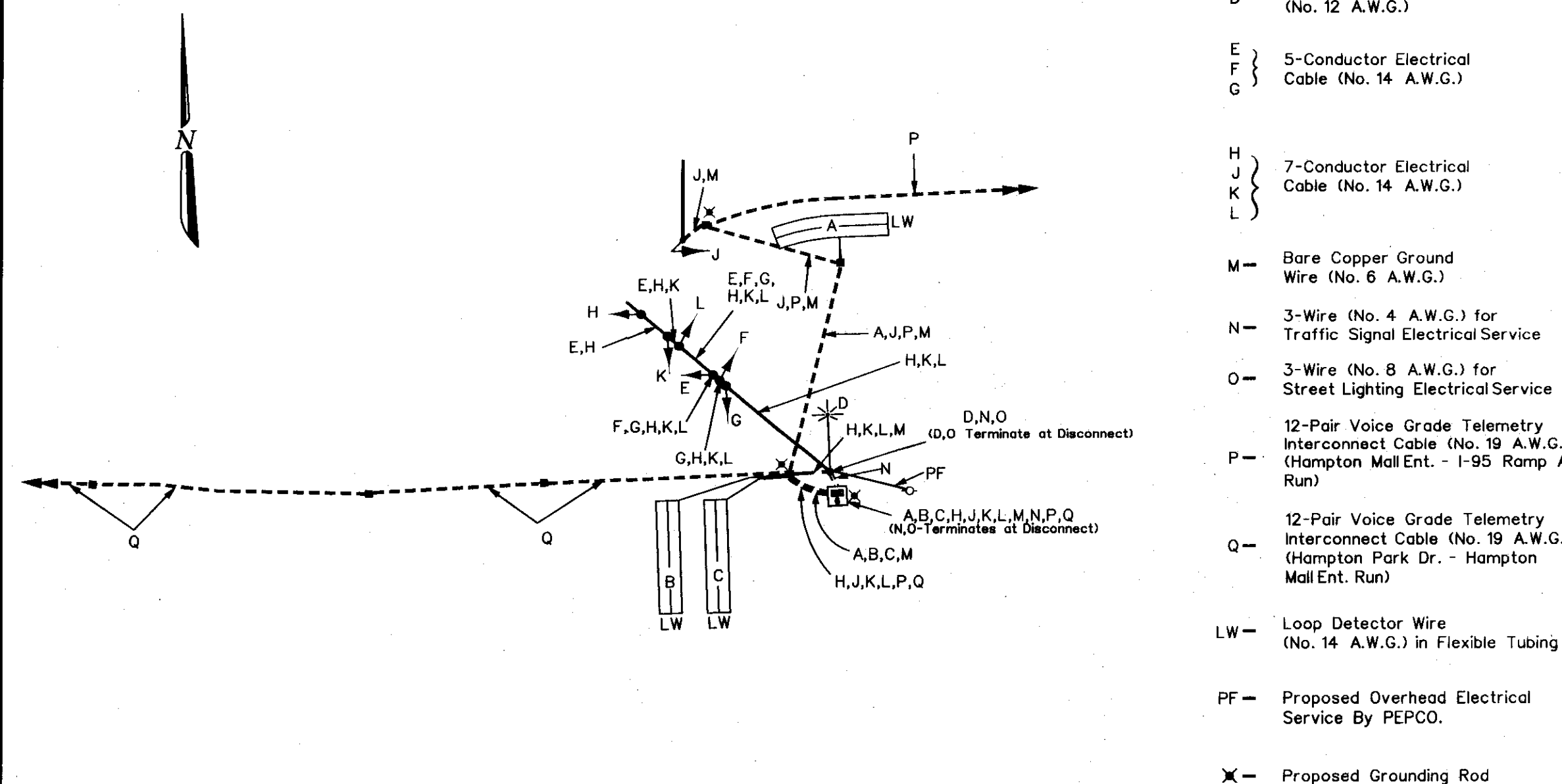
Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Potomac Electric and Power Company
Mr. Ron Besson
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20770
301-976-5325

Phase Chart

	1	2	3	4	5	6	7
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G
Phase 1	R	R	←G	G	G	G	G
1 Change	R	R	←Y	Y	Y	Y	Y
Phase 2	G	G	←FL	R	R	FL/R	FL/R
2 Change	Y	Y	←R	R	R	R	R
Flashing Operation	FL/Y	FL/Y	←FL/R	FL/R	FL/R	FL/R	FL/R

Wiring Diagram



Overhead Utility Sketch

(Not To Scale)



MDOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information)
MD 214 (Central Ave) @ Hampton Mall Entrance

DATE: May 20, 1999 LOG MILE: 160214.003.28
DRAWN BY: F. Hoeckel F.A.P. NO. SEE TITLE SHEET
CHK. BY: PG2345176
SCALE: N/A COUNTY: Prince George's
PLAN SHEET NO.: 3904-GI SHEET NO. 25 of 36